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(54) Title: PAPERMAKING REFINER PLATES AND METHOD OF MANUFACTURE

## (57) Abstract

Replaceable refiner fillings (10) used for refining of lignocellulosic and other natural and synthetic fibrous materials in the manufacture of paper, paperboard, and other fiberboard products. The refiner fillings (10) include a pattern of blades (14) and spacers (16) defined by a bar cluster (24), with the bar cluster being the basis of formation of the filling (10). A method of manufacture provides bar cluster patterns based on factors including pumping angle, plurality of segments in a refiner filling (10), and the number of clusters in a segment. A bar set cluster is established for uniform fabrication of bar clusters (24) for the refiner fillings (10).

